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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,646	12/28/2001	Richard C. Gaus JR.	7589.0005	4095

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Finnegan, Henderson, Farabow,
Garrett & Dunner, L.L.P.
1300 I Street, N.W.
Washington, DC 20005-3315

EXAMINER

PHAN, DAO LINDA

ART UNIT	PAPER NUMBER
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3662

DATE MAILED: 06/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/035,646

Applicant(s)

GAUS ET AL.

Examiner

Dao L. Phan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6 is/are allowed.
- 6) ☒ Claim(s) 7 and 8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

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1. The disclosure is objected to because of the following informalities: On p. 14, line 14, the U.S. Application No. Serial No. is missing. Appropriate correction is required.
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 7-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Marash et al (Pat. No. 6,594,367).

Marash et al teach an apparatus for computing filter coefficients of a beamformer based on a segment of input samples including a shared memory (14₁; col 5, lines 1-2) for receiving the plurality of blocks of input samples at a first rate wherein a first block of the plurality of blocks is received in a shared memory at a first time, and a processor 32 for reading the plurality of blocks of input samples from the shared memory at a second rate, computing (col 7, lines 30-38) a plurality of partial covariance matrices for the plurality of blocks read from the shared memory, adding 20, 40 the plurality of partial covariance matrices, wherein the first block of the plurality of blocks is read from the shared memory at a second time, wherein the second time is delayed from the first time and the second rate is greater than the first rate (fig. 1, 2).

With regard to claim 8, Marash et al teach an apparatus for computing filter coefficients of a beamformer based on a segment of input samples including a shared memory (14₁; col 5, lines 1-2) for receiving the plurality of blocks of input samples, a plurality of partial covariance processors for reading the plurality of blocks of input samples from the shared memory wherein each plurality of partial covariance processors compute (col 7, lines 30-38) a partial covariance matrix for each block of input samples read by the partial covariance processor, and a processor for adding 20, 40 the partial covariance matrices computed by the plurality of partial covariance processors.

4. Claim 8 is rejected under 35 U.S.C. 102(b) as being anticipated by Abo-Zena et al.

Abo-Zena et al teach an apparatus for computing filter coefficients of a beamformer based on a segment of input samples including a shared memory 7 for receiving the plurality of blocks of input samples, a plurality of partial covariance processors for reading the plurality of blocks of input samples from the shared memory wherein each plurality of partial covariance processors compute 17, 19 a partial covariance matrix for each block of input samples read by the partial covariance processor, and a processor for adding 23 the partial covariance matrices computed by the plurality of partial covariance processors.

5. Claims 1-6 are allowed.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dao L. Phan whose telephone number is (703)306-4167. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tarcza Thomas can be reached on (703)306-4171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


DAO PHAN
PATENT EXAMINER